

# Refine Search

9/ 722341

## Search Results -

| Terms  | Documents |
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| L15 and ((prefer\$ with propert\$) or (demographic\$ same prefer\$)) | 9         |

Database:

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L16

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## Search History

DATE: Thursday, June 30, 2005 [Printable Copy](#) [Create Case](#)

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DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

L16 115 and ((prefer\$ with propert\$) or (demographic\$ same prefer\$))

9 L16

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES;  
 OP=OR

(5600364 | 5541638 | 5131039 | 4947430 | 5812776 | 6230153 | 6421675 |  
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 5689648 | 6266649 | 5991735 | 5410344 | 5724521 | 5717923 | 5323240 |  
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 6484149 | 5649186 | 5805156 | 5933811 | 5469206 | 5534911 | 5675819 |  
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 6247130 | 5913210 | 6088722 | 6014664 | 4914698 | 5373558 | 6418434 |  
 5848396 | 6064980) [PN]

140 L15

L14 ('5754939' | '6785671' | '5835087' | '5754938' | '6029195' | '6460036') [PN]

12 L14

DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

L13 ('5754939'| '6785671'| '5835087'| '5754938'| '6029195'| '6460036')[URPN] and 1 L13  
17

L12 ('5754939'| '6785671'| '5835087'| '5754938'| '6029195'| '6460036')[URPN] 573 L12

L11 L10 not 6850252.pn. 6 L11

DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES;  
OP=OR

L10 L7 or l2 7 L10

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L8 L7 and l2 1 L8

L7 L1 and ((buy\$ or sell\$\$) with (home or house or propert\$)) 7 L7

L6 L1 and (prefer\$ with propert\$) 6 L6

L5 L1 and (prefer\$ near4 propert\$) 0 L5

L4 L1 and (prefer\$ near4 property) 0 L4

L3 L1 and (mortgage or propert\$) 151 L3

L2 L1 and (demographic\$ same prefer\$) 1 L2

DB=USPT; THES=ASSIGNEE; PLUR=YES; OP=OR

L1 (profil\$ near5 scor\$) and (propert\$ or mortag\$ or realt\$) and weight\$ 151 L1

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L16: Entry 1 of 9

File: USPT

Jan 30, 2001

US-PAT-NO: 6182050

DOCUMENT-IDENTIFIER: US 6182050 B1

TITLE: Advertisements distributed on-line using target criteria screening with method for maintaining end user privacy

DATE-ISSUED: January 30, 2001

INVENTOR-INFORMATION:

| NAME                | CITY      | STATE | ZIP CODE | COUNTRY |
|---------------------|-----------|-------|----------|---------|
| Ballard; Clinton L. | Suquamish | WA    |          |         |

ASSIGNEE-INFORMATION:

| NAME  | CITY    | STATE | ZIP CODE | COUNTRY | TYPE | CODE |
|---|---------|-------|----------|---------|------|------|
| Acceleration Software International Corporation | Poulsbo | WA    |          |         |      | 02   |

APPL-NO: 09/ 086233 [\[PALM\]](#)

DATE FILED: May 28, 1998

INT-CL: [07] [G06 F 17/60](#)

US-CL-ISSUED: 705/14; 709/217, 709/218, 709/219

US-CL-CURRENT: [705/14](#); [709/217](#), [709/218](#), [709/219](#)

FIELD-OF-SEARCH: 705/14, 705/22, 455/4.2, 455/5.1, 455/5.5, 709/217, 709/218, 709/219

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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|                          | PAT-NO                  | ISSUE-DATE     | PATENTEE-NAME | US-CL   |
|--------------------------|-------------------------|----------------|---------------|---------|
| <input type="checkbox"/> | <a href="#">5515098</a> | May 1996       | Carles        | 348/8   |
| <input type="checkbox"/> | <a href="#">5557721</a> | September 1996 | Fite et al.   | 705/14  |
| <input type="checkbox"/> | <a href="#">5649114</a> | July 1997      | Deaton et al. | 705/14  |
| <input type="checkbox"/> | <a href="#">5721827</a> | February 1998  | Logan et al.  | 455/4.2 |
| <input type="checkbox"/> | <a href="#">5740549</a> | April 1998     | Reilly        | 705/14  |
| <input type="checkbox"/> | <a href="#">5754938</a> | May 1998       | Hertz et al.  | 345/27  |
| <input type="checkbox"/> | <a href="#">5754939</a> | May 1998       | Hertz et al.  | 455/4.2 |

|                          |                |               |                |         |
|--------------------------|----------------|---------------|----------------|---------|
| <input type="checkbox"/> | <u>5758257</u> | May 1998      | Hertz et al.   | 455/4.2 |
| <input type="checkbox"/> | <u>5826165</u> | October 1998  | Echeita et al. | 345/27  |
| <input type="checkbox"/> | <u>5835087</u> | November 1998 | Hertz et al.   | 345/327 |
| <input type="checkbox"/> | <u>5848397</u> | December 1998 | Marsh et al.   | 705/14  |
| <input type="checkbox"/> | <u>5909670</u> | June 1999     | Trader et al.  | 705/14  |
| <input type="checkbox"/> | <u>5915243</u> | June 1999     | Smolen         | 705/14  |
| <input type="checkbox"/> | <u>5933811</u> | August 1999   | Angles et al.  | 705/14  |
| <input type="checkbox"/> | <u>6032129</u> | February 2000 | Greef et al.   | 705/27  |
| <input type="checkbox"/> | <u>6047327</u> | May 1996      | Tso et al.     | 709/232 |

#### FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE | COUNTRY | US-CL |
|----------------|-----------|---------|-------|
| 11161716       | June 1999 | JP      |       |

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Wang; "Keep in Touch: New Breed of Site Links People by Common Interest"; Webweek), Nov. 1997.

"Whowhere Launches the WhoWhere Network"; Telephone IP News; vol.: 9 issue 4, Apr. 1998.

"Capitalizing on abundance of targeting opps for banners ads"; Interactive Marketing News vol.: 4 issue: 10, Mar. 1997.

Lawrence; "Charging per inquiry: A new metric for online advertsing"; Seybold Report on Internet Publishing vol.: 2 p.: 3(5p), May 1998.

Gallagher; "A framework for targeting banner advertising on the Internet"; Faculty of Business Adminstration, Memorial University of Newfoundland, Mar. 1997.

ART-UNIT: 275

PRIMARY-EXAMINER: Trammell; James P.

ASSISTANT-EXAMINER: Jeanty; Romain

ATTY-AGENT-FIRM: Koda; Steven P.

#### ABSTRACT:

Matching between advertisement and target consumer is achieved in a system which maintains consumer privacy. Such system includes computer end users, an advertising service provider and advertisers. Computer end users subscribe to the advertising service provider. The advertising service provider sells time or other accountable units to the advertisers. The advertiser provides the advertisement. Each advertisement has accompanying demographic information or a desired affinity ranking. The end user completes a demographic questionnaire and ranks various categories of products and services. The advertising service provider sends executable filter programs which run on the end user computer to test whether a corresponding advertisement is to be downloaded and displayed. Alternatively, the user sends out a request for advertisements to the advertising service provider,

and the advertising service provider finds advertisements meeting the target demographics requested by the end user or which comply with the affinity rankings.

9 Claims, 3 Drawing figures

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L16: Entry 1 of 9

File: USPT

Jan 30, 2001

*not in the same field of sell/buy. properties.*

DOCUMENT-IDENTIFIER: US 6182050 B1

TITLE: Advertisements distributed on-line using target criteria screening with method for maintaining end user privacy

Detailed Description Text (57):

The advertisement screening performed at the end user computer 14 for this embodiment may include any of the screening methods described above, such as the absolute reverse demographic selection method, the relative reverse demographic selection method, the absolute affinity ranking selection method, the relative affinity ranking selection method, or a combined reverse demographic and affinity ranking selection methods. For embodiments in which advertising filter computer program instructions are downloaded to the end user computer any method using any of the end user data 66, 67 or other data derivable from the end user computer may be used to screen a given advertisement. This is because the filter for a given advertisement can be custom designed. There is a preference, however, that the output of the filter be compatible with the outputs of other filters so that the results of the filters can be compared.

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L16: Entry 2 of 9

File: USPT

Jul 11, 2000

US-PAT-NO: 6088722

DOCUMENT-IDENTIFIER: US 6088722 A

\*\* See image for Certificate of Correction \*\*

no (d.)

TITLE: System and method for scheduling broadcast of and access to video programs and other data using customer profiles

DATE-ISSUED: July 11, 2000

INVENTOR-INFORMATION:

| NAME                | CITY                 | STATE | ZIP CODE | COUNTRY |
|---------------------|----------------------|-------|----------|---------|
| Herz; Frederick     | Canaan Valley, Davis | WV    | 26260    |         |
| Ungar; Lyle         | Philadelphia         | PA    | 19103    |         |
| Zhang; Jian         | Cherry Hill          | NJ    | 08002    |         |
| Wachob; David       | Elkins Park          | PA    | 19027    |         |
| Salganicoff; Marcos | Phiadelphia          | PA    | 19130    |         |

APPL-NO: 08/ 849589 [PALM]

DATE FILED: December 24, 1997

PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATIONS The present application is a continuation-in-part application of U.S. patent application Ser. No. 08/346,425, filed Nov. 29, 1994 now U.S. Pat. No. 5,758,257.

PCT-DATA:

| APPL-NO        | DATE-FILED        | PUB-NO     | PUB-DATE    | 371-DATE     | 102(E)-DATE  |
|----------------|-------------------|------------|-------------|--------------|--------------|
| PCT/US95/15429 | November 29, 1995 | WO96/17467 | Jun 6, 1996 | Dec 24, 1997 | Dec 24, 1997 |

INT-CL: [07] H04 N 7/10, H04 N 7/14, H04 N 7/173, H04 H 1/02

US-CL-ISSUED: 709/217; 348/1, 348/7, 348/10, 348/12, 455/2, 455/5.1, 455/6.2

US-CL-CURRENT: 709/217; 725/46

FIELD-OF-SEARCH: 395/200.47-200.49, 455/2, 455/4.1, 455/4.2, 455/5.1, 455/6.2, 380/6-8, 380/10, 380/11-20, 380/21, 348/1, 348/6, 348/7, 348/10, 348/12, 348/13, 348/906, 348/2

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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Nov. 30, 1993.

Moss, "ADcom Starts Cable-Meter Rollout in California," Multichannel News, Apr. 25, 1994, p. 34.

Otis Port, "Wonder Chips--How They'll Make Computing Power Ultrafast and Ultracheap," Business Week, Jul. 4, 1994, pp. 86-92.

Jonathan Berry, "A Potent New Tool for Selling Database Marketing," Business Week, Sep. 5, 1994, pp. 34-40.

William L. Thomas, "Electronic Program Guide Applications--The Basics of System Design," 1994 NCTA Technical Papers, pp. 15-20.

Judith H. Irven et al., "Multi-Media Information Services: A Laboratory Study," IEEE Communications Magazine, vol. 26, No. 6, Jun., 1988, pp. 24-44.

ART-UNIT: 271

PRIMARY-EXAMINER: Miller; John W.

ATTY-AGENT-FIRM: Woodcock Wasburn Kurtz Mackiewicz & Norris LLP

ABSTRACT:

A system and method for scheduling the receipt of desired movies and other forms of data from a network, which simultaneously distributes many sources of such data to many customers, as in a cable television system. Customer profiles are developed for the recipient describing how important certain characteristics of the broadcast video program, movie, or other data are to each customer. From these profiles, an "agreement matrix" is calculated by comparing the recipient's profiles to the actual profiles of the characteristics of the available video programs, movies, or other data. The agreement matrix thus characterizes the attractiveness of each video program, movie, or other data to each prospective customer. "Virtual" channels are generated from the agreement matrix to produce a series of video or data programming which will provide the greatest satisfaction to each customer. Feedback paths are also provided so that the customer's profiles and/or the profiles of the video programs or other data may be modified to reflect actual usage, and so that the data downloaded to the customer's set top terminal may be minimized. Kiosks are also developed which assist customers in the selection of videos, music, books, and the like in accordance with the customer's objective profiles.

27 Claims, 11 Drawing figures

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L16: Entry 2 of 9

File: USPT

Jul 11, 2000

DOCUMENT-IDENTIFIER: US 6088722 A

**\*\* See image for Certificate of Correction \*\***TITLE: System and method for scheduling broadcast of and access to video programs and other data using customer profilesBrief Summary Text (11):

It is desired to extend a customer preference system such as the "Home Video Club" to include general cable programming offerings and to minimize active customer involvement in the determination of the desired programming. Unlike the movie scheduling system described in the "Home Video Club" application, the number and content of general cable programming channels is scheduled in advance and typically cannot be changed by the customer through a simple voting system. As a result, the customer can only vary his or her video programming by changing channels. In other words, the customer typically illustrates his or her programming preferences by changing channels. Indeed, such changes are monitored by Nielsen, Arbitron, and other ratings agencies in setting the rates for advertising. In U.S. Pat. No. 5,155,591, one of the present inventors carried this concept a step further by obtaining information about the customers and then demographically targeting television commercials to the customers most likely to respond favorably to such advertising. Unfortunately, however, this demographic and customer preference information has not been specifically described for providing customized channels which better reflect the customers' preferences for the programming itself.

Brief Summary Text (18):

In accordance with the invention, a method of scheduling customer access to data from a plurality of data sources is provided. Although the technique of the invention may be applied to match customer profiles for such disparate uses as computerized text retrieval, music and music video selection, home shopping selections, infomercials, and the like, in the presently preferred embodiment, the method of the invention is used for scheduling customer access to video programs and other broadcast data. In accordance with the preferred method, objective customer preference profiles are obtained and compared with content profiles of the available video programming. The initial customer profiles are determined from customer questionnaires, customer demographics, relevance feedback techniques, default profiles, and the like, while the initial content profiles are determined from questionnaires completed by "experts" or some sort of customer's panel, are generated from the text of the video programs themselves, and/or are determined by adopting the average of the profiles of those customers who actually watch the video program. Based on the comparison results, one or more customized programming channels are created for transmission, and from those channels, each customer's set top multimedia terminal may further determine "virtual channels" containing a collection of only those video programs having content profiles which best match the customer's profile and hence are most desirable to the customer during the relevant time frame.

Detailed Description Text (31):

The weighting of the characteristics in the customer and content profiles somewhat depends on how the profiles were determined initially. For example, the weighting of the customer profiles may be obtained directly from a questionnaire by asking the customer to appropriately scale (from 1-10) his or her preference for each

characteristic. On the other hand, if the customer profile is assigned based on demographics, zip code, and the like, the average weights for other customers with the same demographics, zip code, and the like may be used. When more statistical techniques are used for creating the initial customer and content profiles, the weights may be determined mathematically as, for example, the reciprocal of the standard deviation of the characteristics. Of course, other weighting techniques may also be used.

Detailed Description Text (33):

As noted above, the data from which the initial customer profile is derived may be obtained through ballot filling, whereby a number of characteristics are listed and the customer gives his/her preference rating (cv) and flexibility range (sv) for each characteristic. However, people often do not provide all of the necessary responses or the correct responses to such ballots or questionnaires. Similarly, when the initial customer profiles are assigned to new customers on the basis of demographics and the like, there is a substantial likelihood that the initial customer profile will need considerable adjustment. Moreover, the system should account for the fact that many people's tastes change over time. Thus, to ensure accuracy of the profiles, there must be some way to correct errors in the initial customer profiles and to adjust the customer profiles over time.

Detailed Description Text (153):

Thus far, the invention has been described in the context of a "filtering" system in which all of the video programming available at the head end is scheduled on "customized" channels in accordance with the customer profiles of customers and in which a subset of the programming on the "customized" channels available to each customer is selected using an agreement matrix for presentation to the customer as "virtual channels" tailored to that customer's characteristic profiles. However, one of the more interesting applications of the above-mentioned customer profile system is that the same customer profiling system may be used to provide feedback from individual customers regarding what characteristics they find most desirable in the broadcast shows. By obtaining this information, the customer profiles may be appropriately updated as described above. As will now be described, the video programming schedules also may be updated to reflect the customers' actual preferences, and information may be combined with the customer demographics and customer profiles to provide targeted advertising and targeted shop at home opportunities for the customer.

Detailed Description Text (192):

There is a long tradition of clustering people based on demographic or other data, and many clustering algorithms exist ranging from traditional methods such as factor analysis or the k-means clustering algorithm to more esoteric neural network-based methods such as Kohonen networks. Any of these can be used for the task described here, but the present inventors prefer the k-median clustering algorithm. Clusters can be formed based on (1) what programs people watch, (2) what features of programs customers rate as important (e.g., how similar their agreement matrices are), or (3) a combination of programs and features. One can also include demographic or psychographic customer profiles or other information.

Detailed Description Text (225):

By using clustering techniques, one can also determine an initial customer profile even if no history of the customer's preferences is available. In particular, by clustering customers based on demographic or psychographic data, new customers may be assigned customer profiles typical of customers with similar demographics or psychographics. On the other hand, when no characteristics are known for movies or customers, an agreement matrix indicating which movies each customer is likely to watch may be computed from a record of which movies each customer has already watched. As described above, this agreement matrix can be used for selecting a set of virtual channels for each customer, for scheduling movies for delivery over a cable or equivalent transmission system, and for making movie rental or other

rental or purchase recommendations at a kiosk or personal computer (described below). The key to generating the agreement matrix using this approach is the observation that if two people have liked many of the same movies or shows in the past, then they are likely to continue to like similar movies or shows. More precisely, if a person "A" has seen and liked many movies or shows which a second person "B" has seen and liked, then "A" is likely to like other movies or shows which "B" liked. The method set forth below generalizes this concept to multiple customers.

Detailed Description Text (285):

Generally, the two-way set top multimedia terminals would belong to customers connected to the same nodes as other customers having one-way set top multimedia terminals. As a result, the content profiles determined from the test programming and the like may also be used to provide initial customer profiles specific to a new customer to that node. Such a technique may also be used to monitor changing preferences and even changes in demographics for the customers connected to each node by periodically updating the clustered customer profiles for that node to reflect the changes in the customer profiles of those customers connected to a particular node.

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No (d)

L16: Entry 3 of 9

File: USPT

Nov 23, 1999

US-PAT-NO: 5991735

DOCUMENT-IDENTIFIER: US 5991735 A

TITLE: Computer program apparatus for determining behavioral profile of a computer user

DATE-ISSUED: November 23, 1999

INVENTOR-INFORMATION:

| NAME              | CITY      | STATE | ZIP CODE | COUNTRY |
|-------------------|-----------|-------|----------|---------|
| Gerace; Thomas A. | Cambridge | MA    |          |         |

ASSIGNEE-INFORMATION:

| NAME          | CITY        | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|---------------|-------------|-------|----------|---------|-----------|
| Be Free, Inc. | Marlborough | MA    |          |         | 02        |

APPL-NO: 09/ 132277 [PALM]

DATE FILED: August 11, 1998

PARENT-CASE:

RELATED APPLICATION This application is a Continuation of U.S. patent application Ser. No. 08/634,900, filed Apr. 26, 1996, (now U.S. Pat. No. 5,848,396 Dec. 8, 1998) the entire teachings of which are incorporated herein by reference in their entirety.

INT-CL: [06] G06 F 19/00

US-CL-ISSUED: 705/10; 705/1

US-CL-CURRENT: 705/10; 705/1

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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|                          | PAT-NO  | ISSUE-DATE    | PATENTEE-NAME   | US-CL   |
|--------------------------|---------|---------------|-----------------|---------|
| <input type="checkbox"/> | 4659314 | April 1987    | Weinblatt       | 434/236 |
| <input type="checkbox"/> | 4718106 | January 1988  | Weinblatt       | 455/2   |
| <input type="checkbox"/> | 4930011 | May 1990      | Kiewt           | 358/84  |
| <input type="checkbox"/> | 5260778 | November 1993 | Kauffman et al. | 358/86  |
| <input type="checkbox"/> | 5446891 | August 1995   | Kaplan et al.   | 395/600 |

|                          |                |             |         |         |
|--------------------------|----------------|-------------|---------|---------|
| <input type="checkbox"/> | <u>5446919</u> | August 1995 | Wilkins | 455/6.2 |
| <input type="checkbox"/> | <u>5504675</u> | April 1996  | Cragun  | 364/401 |
| <input type="checkbox"/> | <u>5515098</u> | May 1996    | Carles  | 348/8   |
| <input type="checkbox"/> | <u>5636346</u> | June 1997   | Saxe    | 395/201 |

#### FOREIGN PATENT DOCUMENTS

| FOREIGN-PAT-NO | PUBN-DATE   | COUNTRY | US-CL |
|----------------|-------------|---------|-------|
| 95/23371       | August 1995 | WO      |       |

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Weber, Thomas E., "Software Lets Marketers Target Web Ads," The Wall Street Journal, Apr. 21, 1997.

ART-UNIT: 275

PRIMARY-EXAMINER: MacDonald; Allen R.

ASSISTANT-EXAMINER: Irshadullah; M.

ATTY-AGENT-FIRM: Hamilton, Brook, Smith & Reynolds, P.C.

ABSTRACT:

Computer network method and apparatus provides targeting of appropriate audience based on psychographic or behavioral profiles of end users. The psychographic profile is formed by recording computer activity and viewing habits of the end user. Content of categories of interest and display format in each category are revealed by the psychographic profile, based on user viewing of agate information. Using the profile (with or without additional user demographics), advertisements are displayed to appropriately selected users. Based on regression analysis of recorded responses of a first set of users viewing the advertisements, the target user profile is refined. Viewing by and regression analysis of recorded responses of subsequent sets of users continually auto-targets and customizes ads for the optimal end user audience.

23 Claims, 15 Drawing figures

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File: USPT

Nov 23, 1999

DOCUMENT-IDENTIFIER: US 5991735 A

TITLE: Computer program apparatus for determining behavioral profile of a computer user

Brief Summary Text (11):

The present invention uses agate information to determine the profile of a computer user, and in particular the behavioral or psychographic profile, as distinguished from the demographic profile, of a user. To accomplish this, the present invention provides (i) a data assembly for displaying customized agate information to a computer user, and (ii) a tracking and profiling member for recording user activity with respect to agate information displayed through the data assembly. Over time, the tracking and profiling member holds a history and/or pattern of user activity which in turn is interpreted as a user's habits and/or preferences. To that end, a psychographic profile is inferred from the recorded activities in the tracking and profiling member.

Detailed Description Text (50):

For each sponsor (or advertiser), a corresponding Sponsor Object 33a (FIG. 5a) stores in a table (or sponsor directory) the company name, numeric identification unique to that sponsor, user contact information and program 31 administrator contact information. Also Sponsor Object 33a records an indication of the demographic profile of the sponsor company itself in order to advertise to the sponsor company user as is appropriate. Further, Sponsor Object 33a indicates standardized report configurations (display preferences, etc.) for that sponsor.

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L16: Entry 4 of 9

File: USPT

Aug 3, 1999

US-PAT-NO: 5933811

DOCUMENT-IDENTIFIER: US 5933811 A

TITLE: System and method for delivering customized advertisements within interactive communication systems

DATE-ISSUED: August 3, 1999

INVENTOR-INFORMATION:

| NAME                 | CITY          | STATE | ZIP CODE | COUNTRY |
|----------------------|---------------|-------|----------|---------|
| Angles; Paul D.      | Los Angeles   | CA    | 90025    |         |
| Blattner; Douglas O. | Redondo Beach | CA    |          |         |

ASSIGNEE-INFORMATION:

| NAME            | CITY        | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|-----------------|-------------|-------|----------|---------|-----------|
| Angles; Paul D. | Los Angeles | CA    |          |         | 04        |

APPL-NO: 08/ 700032 [\[PALM\]](#)

DATE FILED: August 20, 1996

INT-CL: [06] [G06 F 17/30](#), [G06 F 17/60](#)

US-CL-ISSUED: 705/14; 705/27

US-CL-CURRENT: [705/14](#); [705/27](#)

FIELD-OF-SEARCH: 705/14, 705/27

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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|                          | PAT-NO                  | ISSUE-DATE     | PATENTEE-NAME | US-CL  |
|--------------------------|-------------------------|----------------|---------------|--------|
| <input type="checkbox"/> | <a href="#">5053955</a> | October 1991   | Peach et al.  | 705/14 |
| <input type="checkbox"/> | <a href="#">5319455</a> | June 1994      | Hoarty et al. |        |
| <input type="checkbox"/> | <a href="#">5321604</a> | June 1994      | Peach et al.  | 705/14 |
| <input type="checkbox"/> | <a href="#">5347632</a> | September 1994 | Filepp et al. |        |
| <input type="checkbox"/> | <a href="#">5392066</a> | February 1995  | Fisher et al. |        |
| <input type="checkbox"/> | <a href="#">5412416</a> | May 1995       | Nemirofsky    |        |
| <input type="checkbox"/> | <a href="#">5446919</a> | August 1995    | Wilkins       |        |



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| FOREIGN-PAT-NO | PUBN-DATE     | COUNTRY | US-CL |
|----------------|---------------|---------|-------|
| 0811942A2      | December 1997 | EP      |       |
| 0822535A2      | February 1998 | EP      |       |
| WO 97/41673    | November 1997 | WO      |       |

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Clark, Tim, "It May Pay to Look at Net Ads", Interactive Week, Jun. 4, 1996.

(No author listed), "Internet Access: Internet Marketing Revolution Begins in the U.S. this Sep.; Hyper System Promises New Cash Flow for Providers, Free Access for Users & A New Marketing Opportunity For Businesses", Work-Group Report, Jun. 3, 1996.

Von der Haar, Steven, "Hot Cafe Opens Ad Doors", Interactive Week, May 28, 1996.

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(No author listed), "About I/PRO", I/Pro Website, downloaded May 8, 1996.

Blankenhorn, Dana, "I/PRO Set to Track Web", I/Pro Website, downloaded May 8, 1996.

(No author listed), "InterCard Proposal", InterCard Promotional Materials, Dec. 22, 1995.

ART-UNIT: 277

PRIMARY-EXAMINER: MacDonald; Allen R.

ASSISTANT-EXAMINER: Myhre; James W.

ATTY-AGENT-FIRM: Knobbe, Martens, Olson & Bear LLP

ABSTRACT:

The present invention is a system and method for delivering customized electronic advertisements in an interactive communication system. The customized advertisements are selected based on consumer profiles and are then integrated with offerings maintained by different content providers. The preferred interactive communication system interconnects multiple consumer computers, multiple content provider computers and multiple Internet provider computers with an advertisement provider computer. Whenever a consumer directs one of the consumer computers to access an offering existing in one of the content provider computers, an advertising request is sent to the advertisement provider computer. Upon receiving the advertising request, the advertising provider computer generates a custom advertisement based on the consumer's profile. The custom advertisement is then combined with the offering from the content provider computer and displayed to the consumer. The advertisement provider computer also credits a consumer account, a content provider account and an internet provider account each time a consumer views a custom advertisement. Furthermore, the advertisement provider computer tracks consumer responses to the customized advertisements.

17 Claims, 11 Drawing figures

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L16: Entry 4 of 9

File: USPT

Aug 3, 1999

DOCUMENT-IDENTIFIER: US 5933811 A

TITLE: System and method for delivering customized advertisements within interactive communication systems

Brief Summary Text (20):

In addition, to executing the content provider script, the advertisement provider also obtains the consumer's member code from the consumer computer. The advertisement provider uses the consumer member code to identify the consumer's demographic profile and preferences. The advertisement provider then selects an appropriate advertisement based on the consumer's profile and sends the customized advertisement to the consumer computer. The consumer computer then merges the content provider's electronic document with the advertisement provided by the advertisement provider to create a single displayed document to the consumer.

Detailed Description Text (90):

Thus, when a consumer registers with the advertisement provider computer 18, the registration module 60 displays a HTML document which prompts the consumer to enter demographic data. The demographic data can contain a wide variety of information, including, but not limited to, age, sex, income, career, interests, hobbies, consumer preferences, the account number of the consumer's Internet provider, other account information, etc. Once the consumer enters the demographic data, the registration module 60 stores the demographic data as a profile in the registration database 68.

Detailed Description Text (111):

Upon establishing a link with the registration module 60, the registration module 60 displays a HTML document which invites the consumer to input demographic information. Proceeding to state 504, the consumer enters information which includes, but is not limited to, age, sex, income, career, interests, hobbies, consumer preferences, the account number of the consumer's Internet provider 34, other account information, etc.

Detailed Description Text (139):

In FIG. 8, a detailed flow chart of the operational states which occur during process 712 are shown. Beginning in a start state 712, the advertising module proceeds to state 800. In state 800, the advertising module 62 uses the consumer member code 22 to access the corresponding consumer preferences stored in the consumer's profile in the registration database 60. The advertising module 62 then processes the consumer preferences to determine the appropriate customized advertisement 30. In the preferred embodiment, the advertising module 62 uses well known advertising techniques to categorize the consumer into a particular demographic group based on the consumer's preferences. In another embodiment, the advertising module 62 identifies advertisements which correspond to specific preferences. In yet another embodiment, the advertising module 62 focuses on a subset of advertisements and then selects the most appropriate advertisement in the subset. In still other embodiments, the advertising module can be programmed to accommodate special sales and advertising promotions.

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L16: Entry 5 of 9

File: USPT

Apr 20, 1999

US-PAT-NO: 5895454

DOCUMENT-IDENTIFIER: US 5895454 A

TITLE: Integrated interface for vendor/product oriented internet websites

DATE-ISSUED: April 20, 1999

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Harrington; Juliette

Lyttleton

NZ

APPL-NO: 08/ 837400 [\[PALM\]](#)

DATE FILED: April 17, 1997

INT-CL: [06] [G06](#) [F](#) [153/00](#)

US-CL-ISSUED: 705/26; 705/26, 705/27

US-CL-CURRENT: [705/26](#); [705/27](#)

FIELD-OF-SEARCH: 705/26, 705/27, 380/24, 380/23, 435/5

PRIOR-ART-DISCLOSED:

#### U.S. PATENT DOCUMENTS

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|                          | PAT-NO                  | ISSUE-DATE     | PATENTEE-NAME    | US-CL     |
|--------------------------|-------------------------|----------------|------------------|-----------|
| <input type="checkbox"/> | <a href="#">5319542</a> | June 1994      | King, Jr. et al. |           |
| <input type="checkbox"/> | <a href="#">5592375</a> | January 1997   | Salmon et al.    |           |
| <input type="checkbox"/> | <a href="#">5671279</a> | September 1997 | Elgamal          | 380/23    |
| <input type="checkbox"/> | <a href="#">5710887</a> | January 1998   | Chelliah et al.  | 705/26    |
| <input type="checkbox"/> | <a href="#">5715314</a> | February 1998  | Payne et al.     | 380/24    |
| <input type="checkbox"/> | <a href="#">5727048</a> | March 1998     | Hiroshima et al. | 379/93.12 |
| <input type="checkbox"/> | <a href="#">5742768</a> | April 1998     | Gennaro et al.   | 1/1       |
| <input type="checkbox"/> | <a href="#">5758328</a> | May 1998       | Giovannoli       | 705/26    |
| <input type="checkbox"/> | <a href="#">5790677</a> | August 1998    | Fox et al.       | 380/24    |
| <input type="checkbox"/> | <a href="#">5794207</a> | August 1998    | Walker et al.    | 705/1     |

#### OTHER PUBLICATIONS

Paul; "Stores without door: Kiosks generate new profits", dialogue: File 275, acct# 01537785, Oct. 1992.

ART-UNIT: 275

PRIMARY-EXAMINER: MacDonald; Allen R.

ASSISTANT-EXAMINER: Jeanty; Romain

ATTY-AGENT-FIRM: Merchant, Gould, Smith, Edell, Welter & Schmidt, P.A.

ABSTRACT:

A method of effecting commerce in a networked computer environment in a computerized system is disclosed. A database of vendor product data and an associated database interface is established on a first computer. The interface allows remote access by one or more user(s). A local user interacts with the database by querying the database to specify a local users product/service specification. The database provides the local user with a selection of remote vendor network sites, where the selection is determined on the basis of the user querying the database. After the local user interactively connects with one or more of the remote vendor network sites, the user selects products/services from the information provided on the remote vendor network site. The selection of a particular product/service triggers a transaction notification which records the users selection and associated financial transaction data which is transmitted to the database and associated database interface. The local user may connect to subsequent remote vendor network sites, and each selection of a product/service also triggers a transaction notification which is transmitted to the database. The database and associated database interface provides information relating to the users realtime selection of products/services. During or at the conclusion of a local users shopping session, the user confirms the selection(s) whereby the database and associated database interface transmits purchase/ordering data to the remote vendor sites corresponding to the users selection.

8 Claims, 2 Drawing figures

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L16: Entry 5 of 9

File: USPT

Apr 20, 1999

DOCUMENT-IDENTIFIER: US 5895454 A

TITLE: Integrated interface for vendor/product oriented internet websites

Detailed Description Text (16):

Other search criteria might include search criteria which addresses a particular target or target group, such as a recipient of a gift. Factors such as preference, age, demographics etc could be included in the database and used in determining the appropriate products or vendor sites for connection.

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L16: Entry 6 of 9

File: USPT

Dec 8, 1998

US-PAT-NO: 5848396

DOCUMENT-IDENTIFIER: US 5848396 A

TITLE: Method and apparatus for determining behavioral profile of a computer user

DATE-ISSUED: December 8, 1998

INVENTOR-INFORMATION:

| NAME              | CITY      | STATE | ZIP CODE | COUNTRY |
|-------------------|-----------|-------|----------|---------|
| Gerace; Thomas A. | Cambridge | MA    |          |         |

ASSIGNEE-INFORMATION:

| NAME                         | CITY      | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|------------------------------|-----------|-------|----------|---------|-----------|
| Freedom of Information, Inc. | Cambridge | MA    |          |         | 02        |

APPL-NO: 08/ 634900 [PALM]

DATE FILED: April 26, 1996

INT-CL: [06] G06 F 19/00

US-CL-ISSUED: 705/10; 705/1, 705/10, 455/6.2

US-CL-CURRENT: 705/10; 705/1, 725/14, 725/46

FIELD-OF-SEARCH: 386/1, 348/1, 348/2, 455/2, 455/6.2, 434/236, 705/1, 705/10

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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|                          | PAT-NO         | ISSUE-DATE    | PATENTEE-NAME   | US-CL   |
|--------------------------|----------------|---------------|-----------------|---------|
| <input type="checkbox"/> | <u>4659314</u> | April 1987    | Weinblatt       | 434/236 |
| <input type="checkbox"/> | <u>4718106</u> | January 1988  | Weinblatt       | 455/2   |
| <input type="checkbox"/> | <u>4930011</u> | May 1990      | Kiewt           | 358/84  |
| <input type="checkbox"/> | <u>5260778</u> | November 1993 | Kauffman et al. | 358/86  |
| <input type="checkbox"/> | <u>5446891</u> | August 1995   | Kaplan et al.   | 395/600 |
| <input type="checkbox"/> | <u>5446919</u> | August 1995   | Wilkins         | 455/6.2 |
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| <input type="checkbox"/> | <u>5515098</u> | May 1996      | Carles          | 348/8   |
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"Real Media," <http://www.realmedia.com/index.html>, (1996, Jul. 11).

McFadden, M., "The Web and the Cookie Monster," Digital Age, (1996, Aug.).

Weber, Thomas E., "Software Lets Marketers Target Web Ads," The Wall Street Journal, Apr. 21, 1997.

ART-UNIT: 275

PRIMARY-EXAMINER: Teska; Kevin J.

ASSISTANT-EXAMINER: Irshadullah; M.

ATTY-AGENT-FIRM: Hamilton, Brook, Smith & Reynolds, P.C.

ABSTRACT:

Computer network method and apparatus provides targeting of appropriate audience based on psychographic or behavioral profiles of end users. The psychographic profile is formed by recording computer activity and viewing habits of the end user. Content of categories of interest and display format in each category are revealed by the psychographic profile, based on user viewing of agate information. Using the profile (with or without additional user demographics), advertisements are displayed to appropriately selected users. Based on regression analysis of recorded responses of a first set of users viewing the advertisements, the target user profile is refined. Viewing by and regression analysis of recorded responses of subsequent sets of users continually auto-targets and customizes ads for the optimal end user audience.

28 Claims, 15 Drawing figures

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L16: Entry 6 of 9

File: USPT

Dec 8, 1998

DOCUMENT-IDENTIFIER: US 5848396 A

TITLE: Method and apparatus for determining behavioral profile of a computer user

Brief Summary Text (11):

The present invention uses agate information to determine the profile of a computer user, and in particular the behavioral or psychographic profile, as distinguished from the demographic profile, of a user. To accomplish this, the present invention provides (i) a data assembly for displaying customized agate information to a computer user, and (ii) a tracking and profiling member for recording user activity with respect to agate information displayed through the data assembly. Over time, the tracking and profiling member holds a history and/or pattern of user activity which in turn is interpreted as a user's habits and/or preferences. To that end, a psychographic profile is inferred from the recorded activities in the tracking and profiling member.

Detailed Description Text (50):

For each sponsor (or advertiser), a corresponding Sponsor Object 33a (FIG. 5a) stores in a table (or sponsor directory) the company name, numeric identification unique to that sponsor, user contact information and program 31 administrator contact information. Also Sponsor Object 33a records an indication of the demographic profile of the sponsor company itself in order to advertise to the sponsor company user as is appropriate. Further, Sponsor Object 33a indicates standardized report configurations (display preferences, etc.) for that sponsor.

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L16: Entry 7 of 9

File: USPT

Mar 3, 1998

US-PAT-NO: 5724521

DOCUMENT-IDENTIFIER: US 5724521 A

TITLE: Method and apparatus for providing electronic advertisements to end users in a consumer best-fit pricing manner

DATE-ISSUED: March 3, 1998

INVENTOR-INFORMATION:

| NAME          | CITY      | STATE | ZIP CODE | COUNTRY |
|---------------|-----------|-------|----------|---------|
| Dedrick; Rick | Hillsboro | OR    |          |         |

ASSIGNEE-INFORMATION:

| NAME              | CITY        | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|-------------------|-------------|-------|----------|---------|-----------|
| Intel Corporation | Santa Clara | CA    |          |         | 02        |

APPL-NO: 08/ 333950 [\[PALM\]](#)

DATE FILED: November 3, 1994

INT-CL: [06] [H01 J 13/00](#)

US-CL-ISSUED: 395/226; 348/7, 395/210

US-CL-CURRENT: [705/26](#); [705/10](#), [725/1](#), [725/114](#), [725/131](#), [725/14](#), [725/32](#)

FIELD-OF-SEARCH: 364/41R, 364/41M, 364/408, 348/8, 348/10, 348/385, 348/9, 455/6.2, 351/246, 395/200.09, 395/226, 395/210

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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|                          | PAT-NO                  | ISSUE-DATE     | PATENTEE-NAME   | US-CL    |
|--------------------------|-------------------------|----------------|-----------------|----------|
| <input type="checkbox"/> | <a href="#">4532554</a> | July 1985      | Skala           | 358/257  |
| <input type="checkbox"/> | <a href="#">4602279</a> | July 1986      | Freeman         | 348/10   |
| <input type="checkbox"/> | <a href="#">4789235</a> | December 1988  | Bora            | 351/246  |
| <input type="checkbox"/> | <a href="#">4850007</a> | July 1989      | Marino et al.   | 379/67   |
| <input type="checkbox"/> | <a href="#">4992940</a> | February 1991  | Dworkin         | 364/401R |
| <input type="checkbox"/> | <a href="#">5144663</a> | September 1992 | Kudelski et al. | 380/16   |
| <input type="checkbox"/> | <a href="#">5155591</a> | October 1992   | Wachob          | 348/10   |

|                          |                |                |                |            |
|--------------------------|----------------|----------------|----------------|------------|
| <input type="checkbox"/> | <u>5162989</u> | November 1992  | Matsuda        | 364/401R   |
| <input type="checkbox"/> | <u>5220501</u> | June 1993      | Lawlor et al.  | 364/408    |
| <input type="checkbox"/> | <u>5231494</u> | July 1993      | Wachob         | 348/385    |
| <input type="checkbox"/> | <u>5237157</u> | August 1993    | Kaplan         | 235/375    |
| <input type="checkbox"/> | <u>5267171</u> | November 1993  | Suzuki et al.  | 364/479    |
| <input type="checkbox"/> | <u>5283731</u> | February 1994  | Lalonde et al. | 364/401K   |
| <input type="checkbox"/> | <u>5305195</u> | April 1994     | Murphy         | 364/401R   |
| <input type="checkbox"/> | <u>5339239</u> | August 1994    | Manabe et al.  |            |
| <input type="checkbox"/> | <u>5347632</u> | September 1994 | Filepp         | 395/200.09 |
| <input type="checkbox"/> | <u>5359508</u> | October 1994   | Rossides       | 364/401R   |
| <input type="checkbox"/> | <u>5408417</u> | April 1995     | Wilder         | 364/479    |
| <input type="checkbox"/> | <u>5446919</u> | August 1995    | Wilkins        | 455/6.2    |
| <input type="checkbox"/> | <u>5515098</u> | May 1996       | Carles         | 348/8      |

ART-UNIT: 267

PRIMARY-EXAMINER: Hofsass; Jeffery

ASSISTANT-EXAMINER: Wong; Albert K.

ATTY-AGENT-FIRM: Blakely, Sokoloff, Taylor & Zafman

ABSTRACT:

A method and apparatus for providing electronic advertisements to end users in a consumer best-fit pricing manner includes an index database, a user profile database, and a consumer scale matching process. The index database provides storage space for the titles of electronic advertisements. The user profile database provides storage for a set of characteristics which correspond to individual end users of the apparatus. The consumer scale matching process is coupled to the content database and the user profile database and compares the characteristics of the individual end users with a consumer scale associated with the electronic advertisement. The apparatus then charges a fee to the advertiser, based on the comparison by the matching process. In one embodiment, a consumer scale is generated for each of multiple electronic advertisements. These advertisements are then transferred to multiple yellow page servers, and the titles associated with the advertisements are subsequently transferred to multiple metering servers. At the metering servers, a determination is made as to where the characteristics of the end users served by each of the metering servers fall on the consumer scale. The higher the characteristics of the end users served by a particular metering server fall, the higher the fee charged to the advertiser.

18 Claims, 9 Drawing figures

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L16: Entry 7 of 9

File: USPT

Mar 3, 1998

DOCUMENT-IDENTIFIER: US 5724521 A

TITLE: Method and apparatus for providing electronic advertisements to end users in a consumer best-fit pricing manner

Detailed Description Text (5):

Each client system 12 is provided with an interface, such as a graphic user interface (GUI), that allows the end user to participate in the system 10. The GUI contains fields that receive or correspond to inputs entered by the end user. The fields may include the user's name and possibly a password. The GUI may also have hidden fields relating to "consumer variables." Consumer variables refer to demographic, psychographic and other profile information. Demographic information refers to the vital statistics of individuals, such as age, sex, income and marital status. Psychographic information refers to the lifestyle and behavioral characteristics of individuals, such as likes and dislikes, color preferences and personality traits that show consumer behavioral characteristics. Thus, the consumer variables refer to information such as marital status, color preferences, favorite sizes and shapes, preferred learning modes, employer, job title, mailing address, phone number, personal and business areas of interest, the willingness to participate in a survey, along with various lifestyle information. This information will be referred to as user profile data. The end user initially enters the requested data and the non-identifying information is transferred to the metering server 14. That is, the information associated with the end user is compiled and transferred to the metering server 14 without any indication of the identity of the user (for example, the name and phone number are not included in the computation). The GUI also allows the user to receive inquiries, request information and consume information by viewing, storing, printing, etc. The client system may also be provided with tools to create content, advertisements, etc. in the same manner as a publisher/advertiser.

Detailed Description Text (32):

In one embodiment, client interface 23 provides the end user with access to personal profile database 27 which allows the end user to select certain criteria to be omitted from the compilation process. For example, an end user may select to omit details such as color preferences, income, marital status, age, gender, etc. Alternatively, for demographic information, the user may not initially provide certain information to the personal profile database 27, thereby preventing its inclusion in the compilation.

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L16: Entry 8 of 9

File: USPT

Feb 10, 1998

US-PAT-NO: 5717923

DOCUMENT-IDENTIFIER: US 5717923 A

TITLE: Method and apparatus for dynamically customizing electronic information to individual end users

DATE-ISSUED: February 10, 1998

INVENTOR-INFORMATION:

| NAME          | CITY      | STATE | ZIP CODE | COUNTRY |
|---------------|-----------|-------|----------|---------|
| Dedrick; Rick | Hillsboro | OR    |          |         |

ASSIGNEE-INFORMATION:

| NAME              | CITY        | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|-------------------|-------------|-------|----------|---------|-----------|
| Intel Corporation | Santa Clara | CA    |          |         | 02        |

APPL-NO: 08/ 333963 [\[PALM\]](#)

DATE FILED: November 3, 1994

INT-CL: [06] [G06 F 17/30](#)

US-CL-ISSUED: 395/613; 395/602, 395/603, 395/610, 395/611, 395/615, 395/226, 380/24

US-CL-CURRENT: [707/102](#); [705/10](#), [705/26](#), [705/52](#), [707/10](#), [707/100](#), [707/104.1](#), [707/2](#), [707/3](#)

FIELD-OF-SEARCH: 395/600, 395/613, 395/602, 395/603, 395/610, 395/611, 395/615, 395/226, 364/479, 364/408, 364/401, 364/900, 358/86, 235/383, 380/24

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

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| PAT-NO   | ISSUE-DATE    | PATENTEE-NAME | US-CL   |
|--|---------------|---------------|---------|
| <input type="checkbox"/> <a href="#">4532554</a> | July 1985     | Skala         | 358/434 |
| <input type="checkbox"/> <a href="#">4602279</a> | July 1986     | Freeman       | 348/10  |
| <input type="checkbox"/> <a href="#">4789235</a> | December 1988 | Borah et al.  | 523/451 |
| <input type="checkbox"/> <a href="#">4805134</a> | February 1989 | Calo et al.   | 364/900 |
| <input type="checkbox"/> <a href="#">4850007</a> | July 1989     | Marino et al. | 279/67  |
| <input type="checkbox"/> <a href="#">4992940</a> | February 1991 | Dworkin       | 364/401 |

|                          |                |                |                 |            |
|--------------------------|----------------|----------------|-----------------|------------|
| <input type="checkbox"/> | <u>5144663</u> | September 1992 | Kudelski et al. | 380/16     |
| <input type="checkbox"/> | <u>5155591</u> | October 1992   | Wachob          | 358/86     |
| <input type="checkbox"/> | <u>5162989</u> | November 1992  | Matsuda         | 395/201    |
| <input type="checkbox"/> | <u>5220501</u> | June 1993      | Lawlor et al.   | 364/408    |
| <input type="checkbox"/> | <u>5231494</u> | July 1993      | Wachob          | 348/385    |
| <input type="checkbox"/> | <u>5237157</u> | August 1993    | Kaplan          | 235/375    |
| <input type="checkbox"/> | <u>5256863</u> | October 1993   | Ferguson et al. | 235/383    |
| <input type="checkbox"/> | <u>5267171</u> | November 1993  | Suzuki et al.   | 364/479.04 |
| <input type="checkbox"/> | <u>5283731</u> | February 1994  | Lalonde et al.  | 395/201    |
| <input type="checkbox"/> | <u>5339239</u> | August 1994    | Manabe et al.   | 395/201    |
| <input type="checkbox"/> | <u>5347632</u> | September 1994 | Filepp et al.   | 395/200.09 |
| <input type="checkbox"/> | <u>5408417</u> | April 1995     | Wilder          | 364/479    |
| <input type="checkbox"/> | <u>5446919</u> | August 1995    | Wilkins         | 455/6.2    |

ART-UNIT: 237

PRIMARY-EXAMINER: Black; Thomas G.

ASSISTANT-EXAMINER: Lewis; Cheryl R.

ATTY-AGENT-FIRM: Blakely, Sokoloff, Taylor & Zafman

ABSTRACT:

A method and apparatus for dynamically customizing electronic information to individual end users includes a client system containing a personal profile database which stores consumer information corresponding to individual end user(s) of the client system. The client system also includes a content adapter which compares electronic information received by the client system to the consumer information in the personal profile database and customizes the electronic information to an individual end user based on this comparison. The client system also includes a client activity monitor which monitors actions taken by an individual end user when consuming electronic information and updates the personal profile database based on these actions. In one embodiment, the client activity monitor also monitors which actions are ignored by the individual end user and updates the personal profile database based on the consumer's interaction with the electronic information (that is, both the consumer's action and inaction). In one embodiment, an electronic information server containing a plurality of electronic information units is coupled to the client system via an electronic information distribution network and serves as the source of the electronic information.

32 Claims, 10 Drawing figures

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L16: Entry 8 of 9

File: USPT

Feb 10, 1998

DOCUMENT-IDENTIFIER: US 5717923 A

TITLE: Method and apparatus for dynamically customizing electronic information to individual end users

Detailed Description Text (5):

Each client system 12 is provided with an interface, such as a graphic user interface (GUI), that allows the end user to participate in the system 10. The GUI contains fields that receive or correspond to inputs entered by the end user. The fields may include the user's name and possibly a password. The GUI may also have hidden fields relating to "consumer variables." Consumer variables refer to demographic, psychographic and other profile information. Demographic information refers to the vital statistics of individuals, such as age, sex, income and marital status. Psychographic information refers to the lifestyle and behavioral characteristics of individuals, such as likes and dislikes, color preferences and personality traits that show consumer behavioral characteristics. Thus, the consumer variables refer to information such as marital status, color preferences, favorite sizes and shapes, preferred learning modes, employer, job title, mailing address, phone number, personal and business areas of interest, the willingness to participate in a survey, along with various lifestyle information. This information will be referred to as user profile data. The end user initially enters the requested data and the non-identifying information is transferred to the metering server 14. That is, the information associated with the end user is compiled and transferred to the metering server 14 without any indication of the identity of the user (for example, the name and phone number are not included in the compilation). The GUI also allows the user to receive inquiries, request information and consume information by viewing, storing, printing, etc. The client system may also be provided with tools to create content, advertisements, etc. in the same manner as a publisher/advertiser.

Detailed Description Text (24):

In one embodiment, client interface 23 provides the end user with access to personal profile database 27 which allows the end user to select certain criteria to be omitted from the compilation process. For example, an end user may select to omit details such as color preferences, income, marital status, age, gender, etc. Alternatively, for demographic information, the user may not initially provide certain information to the personal profile database 27, thereby preventing its inclusion in the compilation.

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no (d.)

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L16: Entry 9 of 9

File: USPT

Apr 1, 1997

US-PAT-NO: 5617565

DOCUMENT-IDENTIFIER: US 5617565 A

TITLE: Broadcast interactive multimedia system

DATE-ISSUED: April 1, 1997

INVENTOR-INFORMATION:

| NAME                  | CITY        | STATE | ZIP CODE | COUNTRY |
|-----------------------|-------------|-------|----------|---------|
| Augenbraun; Joseph E. | Princeton   | NJ    |          |         |
| Pearlstein; Larry A.  | Newtown     | PA    |          |         |
| Plotnick; Michael A.  | Southampton | PA    |          |         |

ASSIGNEE-INFORMATION:

| NAME                  | CITY      | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|-----------------------|-----------|-------|----------|---------|-----------|
| Hitachi America, Ltd. | Tarrytown | NY    |          |         | 02        |

APPL-NO: 08/ 346515 [PALM]

DATE FILED: November 29, 1994

INT-CL: [06] G06 F 17/30

US-CL-ISSUED: 395/604; 364/DIG.1, 364/283.3

US-CL-CURRENT: 707/4; 707/104.1

FIELD-OF-SEARCH: 395/600

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

**Search Selected**

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|                          | PAT-NO         | ISSUE-DATE     | PATENTEE-NAME  | US-CL   |
|--------------------------|----------------|----------------|----------------|---------|
| <input type="checkbox"/> | <u>4388645</u> | June 1983      | Cox et al.     | 358/147 |
| <input type="checkbox"/> | <u>4602275</u> | July 1986      | Smith et al.   | 358/11  |
| <input type="checkbox"/> | <u>4614972</u> | September 1986 | Motsch et al.  | 358/147 |
| <input type="checkbox"/> | <u>4679083</u> | July 1987      | Schmitz et al. | 358/147 |
| <input type="checkbox"/> | <u>4695900</u> | September 1987 | Honjo et al.   | 358/310 |
| <input type="checkbox"/> | <u>4837620</u> | June 1989      | Harvey         | 358/142 |



|                          |                |                |                 |            |
|--------------------------|----------------|----------------|-----------------|------------|
| <input type="checkbox"/> | <u>5008853</u> | April 1991     | Bly et al.      | 395/153    |
| <input type="checkbox"/> | <u>5144663</u> | September 1992 | Kudelski et al. | 380/16     |
| <input type="checkbox"/> | <u>5181113</u> | January 1993   | Chang           | 358/142    |
| <input type="checkbox"/> | <u>5237411</u> | August 1993    | Fink et al.     | 358/146    |
| <input type="checkbox"/> | <u>5241625</u> | August 1993    | Epard et al.    | 395/163    |
| <input type="checkbox"/> | <u>5265024</u> | November 1993  | Crabill et al.  | 364/443    |
| <input type="checkbox"/> | <u>5295244</u> | March 1994     | Dev et al.      | 195/161    |
| <input type="checkbox"/> | <u>5307456</u> | April 1994     | MacKay          | 395/154    |
| <input type="checkbox"/> | <u>5335277</u> | August 1994    | Harvey et al.   | 380/20     |
| <input type="checkbox"/> | <u>5347632</u> | September 1994 | Ffilepp et al.  | 395/200.09 |
| <input type="checkbox"/> | <u>5404393</u> | April 1995     | Remillard       | 379/96     |
| <input type="checkbox"/> | <u>5404505</u> | April 1995     | Levinson        | 395/600    |
| <input type="checkbox"/> | <u>5442771</u> | August 1995    | Filepp et al.   | 395/650    |
| <input type="checkbox"/> | <u>5446891</u> | August 1995    | Kaplan et al.   | 395/600    |

#### OTHER PUBLICATIONS

Chang et al, "Intelligent Database Retrieval by Visual Reasoning", Proc Fourteenth Annual International Computer Software and Applications Conference, 31 Oct -1 Nov. 1990, pp. 459-464.

Richards et al, "The Interactive Island", IEE Revies, Jul./Aug. 1991, pp. 259-263.

Sheth et al, "Evolving Agents for Personalized Information Filtering", Proc The Ninth Conference on Artificial Intelligence for Applications, 1-5 Mar. 1993, pp. 345-352.

Yan et al, "Index Structures for Information Filtering Under the Vector Space Model", PROC the 10th International Conference on Data Engineering, 14-18 Feb. 1994, pp. 337-347.

Nussbaumer et al, "Multimedia Delivery on Demand: Capacity Analysis and Implications", Proc 19th Conference on Local Computer Networks, 2-5 Oct. 1994, pp. 380-386.

N. Hutheesing, "Interactivity for the passive", Forbes magazine, Dec. 6, 1993 (copyright Forbes Inc. 1993) (2 pages).

G. Mannes, "Smart Screens", Video Magazine, Dec. 1993 (2 pages) pp. 1-28 of DRD203RW User's Manual relating to Direct TV (no date).

ART-UNIT: 237

PRIMARY-EXAMINER: Amsbury; Wayne

ATTY-AGENT-FIRM: Michaelson & Wallace Michaelson; Peter L. Peoples; John T.

#### ABSTRACT:

A procedure for selecting and storing data elements communicated from a common database to users of the database utilizing a communication link between each transmitter and a concomitant receiver accessible by the user. The transmitted information is augmented with attributes which are used at the receiver to select and then store locally only that information of interest to each receiver's user, wherein the attributes and the user selection pattern determine the criteria for storing information locally. Attributes include: utility of each data element in

time; interest categories and level of interest for each of the categories determined for the collective users; repeat time to the data element; and a hyperlink to associated data elements.

7 Claims, 10 Drawing figures

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L16: Entry 9 of 9

File: USPT

Apr 1, 1997

DOCUMENT-IDENTIFIER: US 5617565 A

TITLE: Broadcast interactive multimedia system

Brief Summary Text (25):

As discerned from the foregoing discussion, the art is devoid of teachings and suggestions for systems which provide the combined, desirable properties of: fast (virtually interactive) access time; easy updating with new information; an inexpensive communication link to the user; accessibility to virtually unlimited database size; ease of navigation; and tailored to each individual user's preferences.

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L13: Entry 1 of 1

File: USPT

Feb 22, 2000

US-PAT-NO: 6029195

DOCUMENT-IDENTIFIER: US 6029195 A

TITLE: System for customized electronic identification of desirable objects

DATE-ISSUED: February 22, 2000

## INVENTOR-INFORMATION:

| NAME                  | CITY  | STATE | ZIP CODE | COUNTRY |
|-----------------------|-------|-------|----------|---------|
| Herz; Frederick S. M. | Davis | WV    | 26260    |         |

APPL-NO: 08/ 985731 [PALM]

DATE FILED: December 5, 1997

## PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATIONS This patent application was originally filed as Provisional Patent Application Ser. No. 60/032,461 on Dec. 9, 1996 and is a continuation-in-part of U.S. patent application Ser. No. 08/346,425, filed Nov. 29, 1994, now U.S. Pat. No. 5,758,257 and titled "SYSTEM AND METHOD FOR SCHEDULING BROADCAST OF AND ACCESS TO VIDEO PROGRAMS AND OTHER DATA USING CUSTOMER PROFILES", which application is assigned to the same assignee as the present application.

INT-CL: [07] G06 F 15/16, H04 H 1/02, H04 N 7/14

US-CL-ISSUED: 709/219; 348/1, 455/2, 707/10

US-CL-CURRENT: 725/116; 707/10, 725/93

FIELD-OF-SEARCH: 395/200.47-200.49, 348/1, 348/2, 348/6, 348/7, 348/8, 348/10, 455/3.1, 455/4.1, 455/4.2, 455/5.1, 455/6.1, 455/6.2

## PRIOR-ART-DISCLOSED:

## U.S. PATENT DOCUMENTS

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| PAT-NO                                  | ISSUE-DATE     | PATENTEE-NAME   | US-CL      |
|---|----------------|-----------------|------------|
| <input type="checkbox"/> <u>4706080</u> | November 1987  | Sincoskie       | 340/825.02 |
| <input type="checkbox"/> <u>5245656</u> | September 1993 | Loeb et al.     | 380/23     |
| <input type="checkbox"/> <u>5301109</u> | April 1994     | Landauer et al. | 364/419.19 |
| <input type="checkbox"/> <u>5321833</u> | June 1994      | Chang et al.    | 395/600    |
| <input type="checkbox"/> <u>5331554</u> | July 1994      | Graham          | 364/419.07 |

|   |               |                   |            |
|---|---------------|-------------------|------------|
| <input type="checkbox"/> <u>5331556</u> | July 1994     | Black, Jr. et al. | 364/419.08 |
| <input type="checkbox"/> <u>5717923</u> | February 1998 | Dedrick           | 704/104 X  |
| <input type="checkbox"/> <u>5724567</u> | March 1998    | Rose et al.       | 707/10     |
| <input type="checkbox"/> <u>5754939</u> | May 1998      | Herz et al.       | 455/4.2    |

## OTHER PUBLICATIONS

"Scatter/Gather: A Cluster-based Approach to Browsing Large Document Collections" by Cutting et al., 15th Ann Int'l Sigir '92, ACM 318-329.

"Evolving Agents For Personalized Information Filtering", Sheth et al., Proc. 9th IEEE Conference on AI for Applications.

"A Secure And Privacy-Protecting Protocol For Transmitting Personal Information Between Organizations" Chaum et al.

ART-UNIT: 271

PRIMARY-EXAMINER: Miller; John W.

ATTY-AGENT-FIRM: Duft, Graziano&Forest,P.C.

## ABSTRACT:

This invention relates to customized electronic identification of desirable objects, such as news articles, in an electronic media environment, and in particular to a system that automatically constructs both a "target profile" for each target object in the electronic media based, for example, on the frequency with which each word appears in an article relative to its overall frequency of use in all articles, as well as a "target profile interest summary" for each user, which target profile interest summary describes the user's interest level in various types of target objects. The system then evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects most likely to be of interest to each user so that the user can select from among these potentially relevant target objects, which were automatically selected by this system from the plethora of target objects that are profiled on the electronic media. Users' target profile interest summaries can be used to efficiently organize the distribution of information in a large scale system consisting of many users interconnected by means of a communication network. Additionally, a cryptographically-based pseudonym proxy server is provided to ensure the privacy of a user's target profile interest summary, by giving the user control over the ability of third parties to access this summary and to identify or contact the user.

15 Claims, 17 Drawing figures

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### Search Results - Record(s) 1 through 7 of 7 returned.

☐ 1. Document ID: US 6850252 B1

L10: Entry 1 of 7

File: USPT

Feb 1, 2005

US-PAT-NO: 6850252

DOCUMENT-IDENTIFIER: US 6850252 B1

TITLE: Intelligent electronic appliance system and method

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|---------|
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|---------|

✓ ☐ 2. Document ID: US 6785671 B1

L10: Entry 2 of 7

File: USPT

Aug 31, 2004

US-PAT-NO: 6785671

DOCUMENT-IDENTIFIER: US 6785671 B1

TITLE: System and method for locating web-based product offerings

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|---------|
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|---------|

✓ ☐ 3. Document ID: US 6460036 B1

L10: Entry 3 of 7

File: USPT

Oct 1, 2002

US-PAT-NO: 6460036

DOCUMENT-IDENTIFIER: US 6460036 B1

TITLE: System and method for providing customized electronic newspapers and target advertisements

| Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw De |
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|---------|
|------|-------|----------|-------|--------|----------------|------|-----------|--------|------|---------|

✓ ☐ 4. Document ID: US 6029195 A

L10: Entry 4 of 7

File: USPT

Feb 22, 2000

US-PAT-NO: 6029195

DOCUMENT-IDENTIFIER: US 6029195 A

TITLE: System for customized electronic identification of desirable objects

| Full | Title | Citation | Front | Review | Classification | Date | Reference |  |  | Claims | KWNC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|----------|

✓ ☒ 5. Document ID: US 5835087 A

L10: Entry 5 of 7

File: USPT

Nov 10, 1998

US-PAT-NO: 5835087

DOCUMENT-IDENTIFIER: US 5835087 A

TITLE: System for generation of object profiles for a system for customized electronic identification of desirable objects

| Full | Title | Citation | Front | Review | Classification | Date | Reference |  |  | Claims | KWNC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|----------|

✓ ☒ 6. Document ID: US 5754939 A

L10: Entry 6 of 7

File: USPT

May 19, 1998

US-PAT-NO: 5754939

DOCUMENT-IDENTIFIER: US 5754939 A

TITLE: System for generation of user profiles for a system for customized electronic identification of desirable objects

| Full | Title | Citation | Front | Review | Classification | Date | Reference |  |  | Claims | KWNC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|----------|

☐ 7. Document ID: US 5754938 A

L10: Entry 7 of 7

File: USPT

May 19, 1998

US-PAT-NO: 5754938

DOCUMENT-IDENTIFIER: US 5754938 A

TITLE: Pseudonymous server for system for customized electronic identification of desirable objects

| Full | Title | Citation | Front | Review | Classification | Date | Reference |  |  | Claims | KWNC | Draw. De |
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|----------|
|------|-------|----------|-------|--------|----------------|------|-----------|--|--|--------|------|----------|

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Documents

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L10: Entry 4 of 7

File: USPT

Feb 22, 2000

US-PAT-NO: 6029195

DOCUMENT-IDENTIFIER: US 6029195 A

TITLE: System for customized electronic identification of desirable objects

DATE-ISSUED: February 22, 2000

## INVENTOR-INFORMATION:

| NAME                  | CITY  | STATE | ZIP CODE | COUNTRY |
|-----------------------|-------|-------|----------|---------|
| Herz; Frederick S. M. | Davis | WV    | 26260    |         |

APPL-NO: 08/ 985731 [\[PALM\]](#)

DATE FILED: December 5, 1997

## PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATIONS This patent application was originally filed as Provisional Patent Application Ser. No. 60/032,461 on Dec. 9, 1996 and is a continuation-in-part of U.S. patent application Ser. No. 08/346,425, filed Nov. 29, 1994, now U.S. Pat. No. 5,758,257 and titled "SYSTEM AND METHOD FOR SCHEDULING BROADCAST OF AND ACCESS TO VIDEO PROGRAMS AND OTHER DATA USING CUSTOMER PROFILES", which application is assigned to the same assignee as the present application.

INT-CL: [07] [G06 F 15/16](#), [H04 H 1/02](#), [H04 N 7/14](#)

US-CL-ISSUED: 709/219; 348/1, 455/2, 707/10

US-CL-CURRENT: [725/116](#); [707/10](#), [725/93](#)

FIELD-OF-SEARCH: 395/200.47-200.49, 348/1, 348/2, 348/6, 348/7, 348/8, 348/10, 455/3.1, 455/4.1, 455/4.2, 455/5.1, 455/6.1, 455/6.2

## PRIOR-ART-DISCLOSED:

## U.S. PATENT DOCUMENTS

☐ Search Selected☐ Search ALL☐ Clear

|                          | PAT-NO                  | ISSUE-DATE     | PATENTEE-NAME     | US-CL      |
|--------------------------|-------------------------|----------------|-------------------|------------|
| <input type="checkbox"/> | <a href="#">4706080</a> | November 1987  | Sincoskie         | 340/825.02 |
| <input type="checkbox"/> | <a href="#">5245656</a> | September 1993 | Loeb et al.       | 380/23     |
| <input type="checkbox"/> | <a href="#">5301109</a> | April 1994     | Landauer et al.   | 364/419.19 |
| <input type="checkbox"/> | <a href="#">5321833</a> | June 1994      | Chang et al.      | 395/600    |
| <input type="checkbox"/> | <a href="#">5331554</a> | July 1994      | Graham            | 364/419.07 |
| <input type="checkbox"/> | <a href="#">5331556</a> | July 1994      | Black, Jr. et al. | 364/419.08 |



|   |               |             |           |
|---|---------------|-------------|-----------|
| <input type="checkbox"/> <u>5717923</u> | February 1998 | Dedrick     | 704/104 X |
| <input type="checkbox"/> <u>5724567</u> | March 1998    | Rose et al. | 707/10    |
| <input type="checkbox"/> <u>5754939</u> | May 1998      | Herz et al. | 455/4.2   |

## OTHER PUBLICATIONS

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"Evolving Agents For Personalized Information Filtering", Sheth et al., Proc. 9th IEEE Conference on AI for Applications.

"A Secure And Privacy-Protecting Protocol For Transmitting Personal Information Between Organizations" Chaum et al.

ART-UNIT: 271

PRIMARY-EXAMINER: Miller; John W.

ATTY-AGENT-FIRM: Duft, Graziano&Forest,P.C.

## ABSTRACT:

This invention relates to customized electronic identification of desirable objects, such as news articles, in an electronic media environment, and in particular to a system that automatically constructs both a "target profile" for each target object in the electronic media based, for example, on the frequency with which each word appears in an article relative to its overall frequency of use in all articles, as well as a "target profile interest summary" for each user, which target profile interest summary describes the user's interest level in various types of target objects. The system then evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects most likely to be of interest to each user so that the user can select from among these potentially relevant target objects, which were automatically selected by this system from the plethora of target objects that are profiled on the electronic media. Users' target profile interest summaries can be used to efficiently organize the distribution of information in a large scale system consisting of many users interconnected by means of a communication network. Additionally, a cryptographically-based pseudonym proxy server is provided to ensure the privacy of a user's target profile interest summary, by giving the user control over the ability of third parties to access this summary and to identify or contact the user.

15 Claims, 17 Drawing figures

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L10: Entry 5 of 7

File: USPT

Nov 10, 1998

US-PAT-NO: 5835087

DOCUMENT-IDENTIFIER: US 5835087 A

TITLE: System for generation of object profiles for a system for customized electronic identification of desirable objects

DATE-ISSUED: November 10, 1998

## INVENTOR-INFORMATION:

| NAME                  | CITY         | STATE | ZIP CODE | COUNTRY |
|-----------------------|--------------|-------|----------|---------|
| Herz; Frederick S. M. | Davis        | WV    | 26260    |         |
| Eisner; Jason M.      | Philadelphia | PA    | 19107    |         |
| Ungar; Lyle H.        | Philadelphia | PA    | 19103    |         |

US-CL-CURRENT: [715/810](#); [725/14](#), [725/35](#), [725/46](#)

## ABSTRACT:

This invention relates to customized electronic identification of desirable objects, such as news articles, in an electronic media environment, and in particular to a system that automatically constructs both a "target profile" for each target object in the electronic media based, for example, on the frequency with which each word appears in an article relative to its overall frequency of use in all articles, as well as a "target profile interest summary" for each user, which target profile interest summary describes the user's interest level in various types of target objects. The system then evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects most likely to be of interest to each user so that the user can select from among these potentially relevant target objects, which were automatically selected by this system from the plethora of target objects that are profiled on the electronic media. Users' target profile interest summaries can be used to efficiently organize the distribution of information in a large scale system consisting of many users interconnected by means of a communication network. Additionally, a cryptographically-based pseudonym proxy server is provided to ensure the privacy of a user's target profile interest summary, by giving the user control over the ability of third parties to access this summary and to identify or contact the user.

24 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 13

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L10: Entry 6 of 7

File: USPT

May 19, 1998

US-PAT-NO: 5754939

DOCUMENT-IDENTIFIER: US 5754939 A

TITLE: System for generation of user profiles for a system for customized electronic identification of desirable objects

DATE-ISSUED: May 19, 1998

## INVENTOR-INFORMATION:

| NAME                  | CITY         | STATE | ZIP CODE | COUNTRY |
|-----------------------|--------------|-------|----------|---------|
| Herz; Frederick S. M. | Davis        | WV    | 26260    |         |
| Eisner; Jason M.      | Philadelphia | PA    | 19107    |         |
| Ungar; Lyle H.        | Philadelphia | PA    | 19103    |         |
| Marcus; Mitchell P.   | Philadelphia | PA    | 19119    |         |

US-CL-CURRENT: [455/3.04](#); [709/219](#), [715/501.1](#), [725/34](#)

## ABSTRACT:

This invention relates to customized electronic identification of desirable objects, such as news articles, in an electronic media environment, and in particular to a system that automatically constructs both a "target profile" for each target object in the electronic media based, for example, on the frequency with which each word appears in an article relative to its overall frequency of use in all articles, as well as a "target profile interest summary" for each user, which target profile interest summary describes the user's interest level in various types of target objects. The system then evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects most likely to be of interest to each user so that the user can select from among these potentially relevant target objects, which were automatically selected by this system from the plethora of target objects that are profiled on the electronic media. Users' target profile interest summaries can be used to efficiently organize the distribution of information in a large scale system consisting of many users interconnected by means of a communication network. Additionally, a cryptographically-based pseudonym proxy server is provided to ensure the privacy of a user's target profile interest summary, by giving the user control over the ability of third parties to access this summary and to identify or contact the user.

22 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 13

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[First Hit](#) [Fwd Refs](#)[Previous Doc](#)[Next Doc](#)[Go to Doc#](#)**End of Result Set**

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L10: Entry 7 of 7

File: USPT

May 19, 1998

US-PAT-NO: 5754938

DOCUMENT-IDENTIFIER: US 5754938 A

TITLE: Pseudonymous server for system for customized electronic identification of desirable objects

DATE-ISSUED: May 19, 1998

## INVENTOR-INFORMATION:

| NAME                  | CITY         | STATE | ZIP CODE | COUNTRY |
|-----------------------|--------------|-------|----------|---------|
| Herz; Frederick S. M. | Davis        | WV    | 26260    |         |
| Eisner; Jason M.      | Philadelphia | PA    | 19107    |         |
| Salganicoff; Marcos   | Philadelphia | PA    | 19130    |         |

US-CL-CURRENT: 725/116; 705/74, 707/6, 707/9, 709/219, 713/155, 725/1, 725/129, 725/25

## ABSTRACT:

This invention relates to customized electronic identification of desirable objects, such as news articles, in an electronic media environment, and in particular to a system that automatically constructs both a "target profile" for each target object in the electronic media based, for example, on the frequency with which each word appears in an article relative to its overall frequency of use in all articles, as well as a "target profile interest summary" for each user, which target profile interest summary describes the user's interest level in various types of target objects. The system then evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects most likely to be of interest to each user so that the user can select from among these potentially relevant target objects, which were automatically selected by this system from the plethora of target objects that are profiled on the electronic media. Users' target profile interest summaries can be used to efficiently organize the distribution of information in a large scale system consisting of many users interconnected by means of a communication network. Additionally, a cryptographically-based pseudonym proxy server is provided to ensure the privacy of a user's target profile interest summary, by giving the user control over the ability of third parties to access this summary and to identify or contact the user.

36 Claims, 17 Drawing figures

Exemplary Claim Number: 1

Number of Drawing Sheets: 13

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Generate Collection

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L10: Entry 2 of 7

File: USPT

Aug 31, 2004

DOCUMENT-IDENTIFIER: US 6785671 B1

TITLE: System and method for locating web-based product offerings

Brief Summary Text (6):

In the field of electronic commerce, it is common for online merchants to sell products within many different product-related categories. For example, Amazon.com, Inc., the assignee of the present application, sells products within the categories of books, music, video & DVD, toys & games, electronics, home improvement, and auctions. The predefined categories and associated products are typically presented to users in the form of a browse tree. In addition, many merchants provide a search engine for conducting searches for products.

Detailed Description Text (13):

The query server 140 includes a category ranking process 150 that prioritizes, by category, the results of searches across all of the various databases 141-147. The prioritization scheme is based upon an assessment of the significance of each category to the search query submitted by the user. The query server 140 also includes a spell checker 152 for detecting and correcting misspellings in search attempts, and a search tool 154 capable of generating search results from a database (e.g. the Books database 141) in response to a query submitted by a user. The search tool 154 prioritizes the items within a search result using different criteria depending upon the database used for the search. One approach, used for the Product Spider database 147, ranks the search result items through the well known "term frequency inverse document frequency" (TFIDF) approach, in which the weighting applied to each term of a multiple-term query is inversely related to the term's frequency of appearance in the database. In other words, the term in a query that appears least often in a database (e.g. the Product Spider database 147) is considered to be the most discriminating term in the query, and thus is given the greatest weight by the search tool 154. Algorithms for implementing this approach are well known and are commonly available in software development kits associated with commercial search engines such ALTAVISTA and EXCITE.

Detailed Description Text (14):

The Product Spider database 147 is generated through the use of a web crawler 160 that crawls web sites on the Internet 120 while storing copies of located web pages. The output of the web crawler 160 is input to a product score generator 162 that assigns a numerical score ("product score") to each web page based upon the likelihood that the page offers a product for sale for either online or offline purchase. For purposes of generating the score in the preferred embodiment, any type of item that can be purchased is considered a "product," including but not limited to physical goods, services, software, and downloadable content. In other embodiments, the products may be based on a more narrow definition of what constitutes a product. For example, by requiring or taking into account whether a web site includes information about shipping, non-physical items can be excluded from consideration or accorded a lesser weight. As depicted in FIG. 1, the product score 170 associated with each indexed web page is stored in the Product Spider Database 147. Alternatively, the web page entries could be grouped according to product score (e.g., top third, middle third, bottom third) without actually storing the score values. As a further refinement, the product scores could be generated and stored on a site-by-site basis rather than on a page-by-page basis.

Detailed Description Text (40):

As noted previously, the search tool 154 assesses the relevance of a multiple-term query to the Product Spider database 147 through inverse document frequency. That is, the weight given to a query term is inversely proportional to the frequency with which it appears in the database. For example, if a user enters the multiple-term query "Mark Twain" into the search engine query field 230, the term "Twain" is likely to appear far less than the term "Mark" in the Product Spider database 147. As such, when searching the database 147 the search tool 154 will give far greater weight to the term "Twain" when prioritizing the results for display to the user. The search tool 154 further prioritizes the results according to each query term's number of appearances, and location of appearance, within the web page. Appearances in the web page title are given the greatest priority; appearances in the first eight words of the body are given secondary priority; appearances in the subsequent thirty-two words of the body are given tertiary priority; and appearances in the remainder of the body are given lowest priority. This priority scheme, which is included with the search tool software developer's kit, is adjustable as needed.

Detailed Description Text (49):

The analysis is conducted on a page by page basis, with each web page being assessed independently. In an alternative embodiment, a target page may be assessed by analyzing, in addition to the content of the target page itself, the contents of other web pages linked to the target page. The analysis may be limited to "neighboring" web pages (i.e., web pages directly accessible via a link on the target page), or it may extend to encompass more remotely accessible web pages (i.e., web pages that are only accessible via a series of links). In these embodiments, the contributions of other web pages to the assessment of the target page may be weighted such that the influence of a remote page decreases with the number of links between the page and the target page, and/or such that only web pages of the same web site are considered.

Detailed Description Text (53):

To produce a product score, the product score generator 162 first generates a set of confidence parameters designed to assess the degree to which the content-based text of a web page suggests a product is being offered for sale. One confidence parameter, "HasOfferingPrice," quantifies the presence of character strings indicative of offering prices. To create the HasOfferingPrice parameter, the product score generator 162 parses the page contents looking for character strings indicative of currency, such as "\$," "US\$" (for prices in dollars), ".English Pound." (for prices in pounds), and "dm" (for prices in Deutschmarks) followed by a string of digits. The algorithm also looks for strings indicative of an offering price, such as "price is []," "price: []," "list: []," "regularly: []," "our price is []," "price including standard shipping is []," "cost is []," "on sale now at []," "on sale now for []," and "[ ] for one," where in each case the square brackets signify a currency indicator followed by a string of numbers. Each time a character string denotative of an offering price is found, the HasOfferingPrice parameter is incrementally increased through a "NoisyOr" operation with a weighting factor.

Detailed Description Text (54):

The NoisyOr operation is an analog variant of the binary OR operation, where  $\text{NoisyOr}(A,B) = A+B - (A \cdot B)$ , where A and B are between 0 and 1, inclusive. The properties of the NoisyOr operation are characterized in Table I, where a variable B ( $0 \leq B \leq 1$ ) is NoisyOr'ed against select values of a parameter A ( $0 \leq A \leq 1$ ).

Detailed Description Text (56):

The weighting factor used for a particular text pattern for a particular confidence parameter within the NoisyOr operation depends upon the degree of confidence associated with the text pattern. Table II provides weighting factors, determined empirically, for the HasOfferingPrice parameter for some example text patterns. In

Table II the parameters H.sub.old and H.sub.new refer to the HasOfferingPrice parameter before and after, respectively, the NoisyOr operation is applied.

Detailed Description Text (58):

Other confidence parameters, analogous to HasOfferingPrice, are used to quantify a wide variety of character strings associated with product offerings, including the presence of warranty terms, sales tax information, shipping information, SKU numbers, shopping carts, and click-to-buy options. Each confidence parameter is incremented through the use of the NoisyOr operation and weighting factors in the same manner described above for the HasOfferingPrice parameter. The specific character strings and weighting factors used for the confidence parameters are disclosed in Appendices A, B and C.

Detailed Description Text (59):

The product score generator 162 combines the finished set of confidence parameters through a series of nested NoisyOr operations, again using empirical weighting factors, to generate a single product score for the page. The specific combinations and weighting factors used to generate the product score are disclosed in Appendix D.

Detailed Description Text (87):

The method used to prioritize the search result items within the Product Spider database 147 has already been discussed. Briefly, a database entry is given a higher priority depending upon the number of times a search term appears in the page. Appearances in the web page title, and in text near the beginning of the page, are given higher priority than later appearances. In multiple-term queries, the significance of each term is weighted in a manner inversely proportional to how frequently the term appears in the Product Spider database 147.

Detailed Description Text (98):

Different weightings may be associated with different user activities. In one embodiment, for example, clicking on an item increments the item's popularity score by one while placing the same item in an on-line "shopping cart" increments its popularity score by fifty.

Detailed Description Text (100):

The popularity scores of the multiple intermediate result tables are weighted equally during the merging into the full table 750. In an alternative embodiment, the popularity scores of the multiple intermediate tables are assigned different weightings for merging, with the weightings depending on the times at which the intermediate tables were created. In one such embodiment, the weightings used for merger decrease with increasing age of the intermediate table.

Detailed Description Text (123):

In another embodiment, a set of weighting factors is applied to the set of category popularity scores. Such weighting factors may be used to help or hinder particular categories as desired. For example, if it was decided that during the holiday season the Flowers & Gifts category should be provided a competitive advantage, that category may be given a weighting factor of two, with each of the remaining categories having a weighting factor of one. With such a weighting set, the Software (score=1.times.90=90), Flowers & Gifts (score=2.times.70=140), and Packaged Travel (score=1.times.66=66) categories would now be ranked second, first, and third, respectively. These weighting factors may be influenced by the profile of the user who submitted the search query. Furthermore, the popularity scores may be influenced by the profile of the user who submits the search query. For example, the complete history of selections made by the user within the host web site 130 may be retained in a database (not shown in FIG. 1). This information may be used to adjust the weightings to further individualize the presentation. If the user has made 90% of her prior purchases on the host web site 130 from the Videos database 143, for example, the Videos category popularity scores may be given greater weight

to reflect this individualized history.

Detailed Description Text (131):

In one embodiment, the Auctions category popularity score is determined by summing up the number of matching items found by the search tool 154 for the submitted search query within the Auctions database 144. In another embodiment, the Auctions category popularity score is determined by summing up the number of matching auctions with less than a predetermined amount of time remaining. In yet another embodiment, the Auctions category popularity score is determined by a weighted summation of the number of matching auctions, with the weighting factor for a particular auction determined by the amount of time remaining for that auction. Preferably this weighting factor is inversely proportional to the time remaining for the auction.

Detailed Description Text (133):

The use of category popularity score weighting factors, discussed above, is preferably used to "normalize" the popularity scores between the Auctions and the other categories. In one embodiment, the Books, Music, Auction, and Videos category 310, 320, 330, 340 popularity scores are weighted equally. In another embodiment, the Auctions category popularity score is given a weighting three times as large as the scores of the remaining categories. In still another embodiment, the Auctions category popularity score is given a weighting one-third as large as the scores of the remaining categories.

Detailed Description Paragraph Table (2):

TABLE II Text Pattern Weighting Resulting NoisyOr "your price is [ ]" 0.9 H.sub.new = NoisyOr(H.sub.old,0.9) "price: [ ] for one" 0.6 H.sub.new = NoisyOr(H.sub.old,0.6) "price is [ ] per person" 0.4 H.sub.new = NoisyOr(H.sub.old,0.4) "[ ]/person" 0.2 H.sub.new = NoisyOr(H.sub.old,0.2) "[ ] for one" 0.1 H.sub.new = NoisyOr(H.sub.old,0.1)

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L10: Entry 3 of 7

File: USPT

Oct 1, 2002

US-PAT-NO: 6460036

DOCUMENT-IDENTIFIER: US 6460036 B1

TITLE: System and method for providing customized electronic newspapers and target advertisements

DATE-ISSUED: October 1, 2002

## INVENTOR-INFORMATION:

| NAME                  | CITY  | STATE | ZIP CODE | COUNTRY |
|-----------------------|-------|-------|----------|---------|
| Herz; Frederick S. M. | Davis | WV    |          |         |

## ASSIGNEE-INFORMATION:

| NAME                  | CITY | STATE | ZIP CODE | COUNTRY | TYPE CODE |
|-----------------------|------|-------|----------|---------|-----------|
| Pinpoint Incorporated |      | TX    |          |         | 02        |

APPL-NO: 08/ 985732 [\[PALM\]](#)

DATE FILED: December 5, 1997

## PARENT-CASE:

CROSS-REFERENCE TO RELATED APPLICATIONS This patent application was originally filed as provisional application Serial No. 60/032,462, filed on Dec. 9, 1996 and is a continuation-in-part of U.S. patent application Ser. No. 08/346,425, filed Nov. 28, 1994 now U.S. Pat. No. 5,758, 257, and titled "SYSTEM AND METHOD FOR SCHEDULING BROADCAST OF AND ACCESS TO VIDEO PROGRAMS AND OTHER DATA USING CUSTOMER PROFILES", which application is assigned to the same assignee as the present application.

INT-CL: [07] [G06 F 17/30](#), [G06 F 17/60](#), [G06 F 15/16](#), [H04 H 9/00](#)

US-CL-ISSUED: 707/10; 707/2, 725/14, 709/217, 705/14

US-CL-CURRENT: [707/10](#); [705/14](#), [707/2](#), [709/217](#), [725/14](#)

FIELD-OF-SEARCH: 707/103, 707/10, 707/13R, 707/2, 707/9, 395/200.36, 348/7, 705/14, 725/105, 725/14, 709/217

## PRIOR-ART-DISCLOSED:

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PAT-NO

ISSUE-DATE

PATENTEE-NAME

US-CL

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November 1987

Sincoskie

340/825.02

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ART-UNIT: 2171

PRIMARY-EXAMINER: Metjahic; Safet

ASSISTANT-EXAMINER: Le; Uyen

ATTY-AGENT-FIRM: Hunn; Melvin A.

## ABSTRACT:

This invention relates to customized electronic identification of desirable objects, such as news articles, in an electronic media environment, and in particular to a system that automatically constructs both a "target profile" for each target object in the electronic media based, for example, on the frequency with which each word appears in an article relative to its overall frequency of use in all articles, as well as a "target profile interest summary" for each user, which target profile interest summary describes the user's interest level in various types of target objects. The system then evaluates the target profiles against the users' target profile interest summaries to generate a user-customized rank ordered listing of target objects most likely to be of interest to each user so that the user can select from among these potentially relevant target objects, which were automatically selected by this system from the plethora of target objects that are profiled on the electronic media. Users' target profile interest summaries can be used to efficiently organize the distribution of information in a large scale system consisting of many users interconnected by means of a communication network. Additionally, a cryptographically-based pseudonym proxy server is provided to ensure the privacy of a user's target profile interest summary, by giving the user control over the ability of third parties to access this summary and to identify or contact the user.

20 Claims, 17 Drawing figures

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L2: Entry 1 of 1

File: USPT

Feb 1, 2005

US-PAT-NO: 6850252

DOCUMENT-IDENTIFIER: US 6850252 B1

TITLE: Intelligent electronic appliance system and method

DATE-ISSUED: February 1, 2005

## INVENTOR-INFORMATION:

| NAME                | CITY          | STATE | ZIP CODE | COUNTRY |
|---------------------|---------------|-------|----------|---------|
| Hoffberg; Steven M. | West Harrison | NY    | 10994    |         |

APPL-NO: 09/ 680049 [\[PALM\]](#)

DATE FILED: October 5, 2000

## PARENT-CASE:

The present application is related to U.S. patent application Ser. Nos. 09/497,071; 09/304,536; 09/260,802; 09/304,536; 09/241,135; 08/469,589; and 60/157,829, and U.S. Pat. Nos. 6,081,750; 5,920,477; 5,903,454; 5,901,246; 5,875,108; 5,867,386; and 5,774,357. The present application claims benefit of priority from U.S. Provisional Patent Application No. 60/157,829 filed on Oct. 5, 1999.

INT-CL: [07] [G09 G 5/00](#), [H04 K 1/02](#)

US-CL-ISSUED: 345/716; 345/719, 345/727, 380/252

US-CL-CURRENT: [715/716](#); [380/252](#), [715/719](#), [715/727](#)

FIELD-OF-SEARCH: 345/760, 345/866, 345/717, 345/749, 345/716, 345/727, 380/201, 380/252, 713/776, 381/71, 381/72, 381/370, 381/371

PRIOR-ART-DISCLOSED:

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| <input type="checkbox"/> <u>6275592</u>      | August 2001    | Vartiainen       |         |
| <input type="checkbox"/> <u>6285773</u>      | September 2001 | Carme et al.     |         |
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| FOREIGN-PAT-NO | PUBN-DATE     | COUNTRY | US-CL    |
| WO 99/05998    | February 1999 | WO      | 381/71.6 |

ART-UNIT: 2174

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ATTY-AGENT-FIRM: Milde &amp; Hoffberg LLP

ABSTRACT:

An intelligent electronic appliance preferably includes a user interface, data input and/or output port, and an intelligent processor. A preferred embodiment comprises a set top box for interacting with broadband media streams, with an adaptive user interface, content-based media processing and/or media metadata processing, and telecommunications integration. An adaptive user interface models the user, by observation, feedback, and/or explicit input, and presents a user interface and/or executes functions based on the user model. A content-based media processing system analyzes media content, for example audio and video, to understand the content, for example to generate content-descriptive metadata. A media metadata processing system operates on locally or remotely generated metadata to process the media in accordance with the metadata, which may be, for example, an electronic program guide, MPEG 7 data, and/or automatically generated format. A set top box preferably includes digital trick play effects, and incorporated digital rights management features.

22 Claims, 32 Drawing figures

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